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10/507,005	01/31/2005	Peter Aranyi	SSL0089-US-PCT	8861

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ROSS J. OEHLER
SANOFI-AVENTSI U.S. LLC
1041 ROUTE 202-206
MAIL CODE: D303A
BRIDGEWATER, NJ 08807

EXAMINER

GRAZIER, NYEEMAH

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/507,005	Applicant(s) ARANYI ET AL.	
	Examiner Nyeemah Grazier	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 30-74 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

I. ACTION SUMMARY

Claims 30-74 are currently pending in the instant application. Claims 1-29 have been canceled.

II. PRIORITY

This application is a 371 of PCT/HU03/00017, filed on March 4, 2003. Applicant claims priority under 35 USC 119 (a-d) to foreign application HUNGARY P0200849, filed March 6, 2002.

III. RESTRICTION-LACK OF UNITY OF INVENTION

Restriction is required under 35 U.S.C. 121 and 372 because the instant application contains the following inventions or groups of inventions which are not so linked to form a single general inventive concept under PCT Rule 13.1. Therefore a restriction is required according to the provision of PCT Rule 13.2.

The instant application contains Markush practice. However, pursuant to Section B (Markush Practice) MPEP § 1850 (B), the invention does not meet the unity of invention criteria because (1) the core structure is not the unifying criteria and (2) the variables do not belong to a “recognized class of chemical compounds in the art to which the invention pertains.” MPEP § 1850 (B) (2004).

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The special technical feature is the pyrrolidinyl moiety. Unity of invention is lacking because the core is not novel, *infra*. Claims 30-74 are drawn to more than one inventive concept (as defined by PCT Rule 13), and accordingly, a restriction is required according to the provision of PCT Rule 13.2.

PCT Rule 13.2 states that the international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept (requirement of unity of invention). PCT Rule 13.2 states unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features.

Annex B, Part 1 (b), provides that “special technical features” mean those technical features, which, as a whole, define a contribution over the prior art.

Annex B, Part 1 (e), provides combinations of different categories of claims and states:

“The method for determining unity of invention under Rule 13 shall be construed as permitting, in particular, the inclusion of any one of the following combinations of claims of different categories in the same international application:

- (i) in addition to an independent claim for a given product, an independent claims for a process specially adapted for the manufacture of the said product, and an independent claim for use of the said product, or
- (ii) in addition to an independent claim for a given process, an independent claim for an apparatus or means specially designed for carrying out the said process, or
- (iii) in addition to an independent claim for a given product, and independent claim for a process specially adapted for the manufacture of the said product, and an independent claim for an apparatus or means specially designed for carrying out the said process,...

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

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Due to the numerous and widely-divergent variables in the compound of Formula (I), such as B, R1, R2 and R3, etc. a precise listing of inventive groups cannot be made. *The following groups are exemplary:*

Group I: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyridyl (formula (1) and (2);

R1 represents nitrogen containing aromatic moiety selected from pyridyl, imidazolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, benzimidazolyl, indazolyl, benzthiazolyl, benziethiazolyl, benzoxazolyl or benzisoxazolyl; and

R2 and R3 are defined in claim 1.

Group II: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyrrolidyl (formula (3);

R1 represents nitrogen containing aromatic moiety selected from pyridyl, imidazolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, benzimidazolyl, indazolyl, benzthiazolyl, benziethiazolyl, benzoxazolyl or benzisoxazolyl; and

R2 and R3 are defined in claim 1.

Group III: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents bicyclic formulae 4-7;

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R1 represents nitrogen containing aromatic moiety selected from pyridyl, imidazolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, benzimidazolyl, indazolyl, benzthiazolyl, benziethiazolyl, benzoxazolyl or benzisoxazolyl; and

R2 and R3 are defined in claim 1.

Group IV: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyridyl (formula (1) and (2);

R1 represents thienyl or furyl; and

R2 and R3 are defined in claim 1.

Group V: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyrrolidyl (formula (3);

R1 represents thienyl or furyl; and

R2 and R3 are defined in claim 1.

Group VI: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents bicyclic formulae 4-7;

R1 represents thienyl or furyl; and

R2 and R3 are defined in claim 1.

Group VII: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyridyl (formula (1) and (2);

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R1 represents benzyl or p-toluenesulfonyl; and

R2 and R3 are defined in claim 1.

Group VIII: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyrrolidyl (formula (3));

R1 represents benzyl or p-toluenesulfonyl; and

R2 and R3 are defined in claim 1.

Group IX: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents bicyclic formulae 4-7;

R1 represents benzyl or p-toluenesulfonyl; and

R2 and R3 are defined in claim 1.

Group X: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyridyl (formula (1) and (2));

R¹ represents R_{1a}-CO wherein R_{1a} is C₁₋₄ alkyl or phenyl; and

R² and R³ are defined in claim 1.

Group XI: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyrrolidyl (formula (3));

R¹ represents R_{1a}-CO wherein R_{1a} is C₁₋₄ alkyl or phenyl; and

R² and R³ are defined in claim 1.

Group XII: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents bicyclic formulae 4-7;

R¹ represents R_{1a}-CO wherein R_{1a} is C₁₋₄ alkyl or phenyl; and

R² and R³ are defined in claim 1.

Group XIII: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyridyl (formula (1) and (2);

R¹ represents R_{1a}-CO wherein R_{1a} represents piperidine-1-yl, 4-methylpiperazin-1-yl, pyrrolidin-1-yl, phenyl, pyridyl, or phenylethenyl; and

R² and R³ are defined in claim 1.

Group XIV: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents pyrrolidyl (formula (3);

R¹ represents R_{1a}-CO wherein R_{1a} represents piperidine-1-yl, 4-methylpiperazin-1-yl, pyrrolidin-1-yl, phenyl, pyridyl, or phenylethenyl; and

R² and R³ are defined in claim 1.

Group XV: Claims 30-58 drawn to the compounds of formula (I) wherein:

B represents bicyclic formulae 4-7;

R¹ represents R_{1a}-CO wherein R_{1a} represents piperidine-1-yl, 4-methylpiperazin-1-yl, pyrrolidin-1-yl, phenyl, pyridyl, or phenylethenyl; and

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R² and R³ are defined in claim 1.

Group XVI: Claims 59 drawn to the process of making the compounds of formula (I) wherein:

B represents pyrrolidyl (formula (3));

R1 represents nitrogen containing aromatic moiety selected from pyridyl, imidazolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, benzimidazolyl, indazolyl, benzthiazolyl, benziethiazolyl, benzoxazolyl or benzisoxazolyl; and

R2 and R3 are defined in claim 1.

Group XVI: Claims 60-67 drawn to the process of using the compounds of formula (I)

wherein:

B represents pyrrolidyl (formula (3));

R1 represents nitrogen containing aromatic moiety selected from pyridyl, imidazolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, benzimidazolyl, indazolyl, benzthiazolyl, benziethiazolyl, benzoxazolyl or benzisoxazolyl; and

R2 and R3 are defined in claim 1.

Group XVII: Claims 68 drawn intermediate compounds of formula (II) wherein:

B represents pyrrolidyl (formula (3)); and

R1 represents nitrogen containing aromatic moiety selected from pyridyl, imidazolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, benzimidazolyl, indazolyl, benzthiazolyl, benziethiazolyl, benzoxazolyl or benzisoxazolyl.

Group XVIII: Claim 69 drawn to intermediate compounds of formula (III).

Group XIX: Claim 70 drawn to intermediate compound of formula (V).

B represents pyrrolidyl (formula (3)); and

R1 represents nitrogen containing aromatic moiety selected from pyridyl, imidazolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, benzimidazolyl, indazolyl, benzthiazolyl, benziethiazolyl, benzoxazolyl or benzisoxazolyl.

Group XX: Claim 71 drawn to the compounds of formula (VII).

Group XXI: Claims 72 and 73 drawn to an intermediate compound.

Group XXII: Claim 74 drawn to intermediate compound of formula (IX).

The abovementioned groups are exemplary and therefore the list of groups as described is not exhaustive. Applicant is encouraged to particularly describe a compound that is not listed above by specifically pointing out the definitions of each variable.

Advisory of Rejoinder

The Examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection

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or allowance, whichever is earlier. Amendments submitted after final rejections are governed by 37 CFR 1.116; amendments submitted after allowances are governed by 37 CFR 1.312.

The following is a recitation of M.P.E.P. 821.04, Rejoinder:

Where product and process claims drawn to independent and distinct inventions are presented in the same application, applicant may be called upon under 35 U.S.C. 121 to elect claims to either the product or process. See MPEP § 806.05(f) and § 806.05(h). The claims to the nonelected invention will be withdrawn from further consideration under 37 CFR 1.142. See MPEP § 809.02(c) and § 821 through § 821.03. However, if applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims, which depend from or otherwise include all the limitations of the allowable product claim will be rejoined.

Where the application as originally filed discloses the product and the process for making and/or using the product, and only claims directed to the product are presented for examination, when a product claim is found allowable, applicant may present claims directed to the process of making and/or using the patentable product by way of amendment pursuant to 37 CFR 1.121. In view of the rejoinder procedure, and in order to expedite prosecution, applicants are encouraged to present such process claims, preferably as dependent claims, in the application at an early stage of prosecution. Process claims, which depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance. Amendments submitted after final rejection are governed by 37 CFR 1.116. Process claims which do not depend from or otherwise include the limitations of the patentable product will be withdrawn from consideration, via an election by original presentation (see MPEP § 821.03). Amendments submitted after allowance are governed by 37 CFR 1.312. Process claims which depend from or otherwise include all the limitations of an allowed product claim and which meet the requirements of 35 U.S.C. 101, 102, 103, and 112 may be entered.

Where product and process claims are presented in a single application and that application qualifies under the transitional restriction practice pursuant to 37 CFR 1.129(b), applicant may either: (A) elect the invention to be searched and examined and pay the fee set forth in 37 CFR 1.17(s) and have the additional inventions searched and examined under 37 CFR 1.129(b)(2); or (B) elect the invention to be searched and examined and not pay the additional fee (37 CFR 1.129(b)(3)). Where no additional fee is paid, if the elected invention is directed to the product and the claims directed to the product are subsequently found patentable, process claims which either depend from or include all the limitations of the allowable product will be rejoined. If applicant chooses to pay the fees to have the additional inventions searched and examined pursuant to 37 CFR 1.129(b)(2) even if the product is found allowable, applicant would not be entitled to a refund of the fees paid under 37 CFR 1.129(b) by arguing that the process claims could have been rejoined. 37 CFR 1.26(a) states that "[T]he Commissioner may refund any fee paid by mistake or in excess of that required. A change of purpose after the payment of a fee...will not entitle a party to a refund of such fee..." In this case, the fees paid under 37 CFR 1.129(b) were not paid by mistake nor paid in excess, therefore, applicant would not be entitled to a refund. In the event of rejoinder, the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. If the application containing the rejoined claims is not in condition for allowance, the subsequent Office action may be made final, or, if the application was already under final rejection, the next Office action may be an advisory action. Form paragraphs 8.42 through 8.44 should be used to notify applicant of the rejoinder of

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process claims which depend from or otherwise include all the limitations of an allowable product claim.

In the event of rejoinder, the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104 - 1.106. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. If the application containing the rejoined claims is not in condition for allowance, the subsequent Office action may be made final, or, if the application was already under final rejection, the next Office action may be an advisory action.

The following is a recitation from paragraph five, "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. §103(b)" (1184 TMOG 86(March 26, 1996)):

"However, in the case of an elected product claim, rejoinder will be permitted when a product claim is found allowable and the withdrawn process claim **depends from or otherwise includes all the limitations of an allowed product claim**. Withdrawn process claims not commensurate in scope with an allowed product claim will not be rejoined." (emphasis added)

Pursuant to M.P.E.P. § 821.04 and In re Ochiai, 71 F.3d 1565, 37 USPQ 1127 (Fed. Cir. 1995), rejoinder of product claims with process claims commensurate in scope with the allowed product claims will occur following a finding that the product claims are allowable. Until, such time, a restriction between product claims and process claims is deemed proper. Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution to maintain either dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Applicant is reminded that upon cancellation of claims to a nonelected invention, the inventions must be amended in compliance with 37 C.F.R. 1.48(b) if one of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 C.F.R. 1.48(b) and by the fee required under 37 C.F.R. 1.17(i).

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted. As stated above, this is not an exhaustive list, as it would be impossible to produce such a list under the time constraints due to the large volume of subject matter claimed in this application.

The claims herein lack unity of invention under PCT Rules 13.1 and 13.2 because, pursuant to 37 C.F.R. 1.475(a) the instant invention lacks unity of invention since under 37 CFR 1.475:

Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical feature among those inventions involving one or more of the same or corresponding special technical features...those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The structural moiety common to **Groups I-XXII** is the pyrrolidyl moiety, and is therefore the *technical feature*. However, this technical feature is not a *special technical feature*, because it fails to define a contribution over the prior art (*See*, Hughes et al., Biochemistry, vol. 38 (36), pp. 11597-11603 (1999) for example). Therefore, Claims 30-74 are not so linked as to form a single general inventive concept and there is a lack of unity of invention. The variables vary extensively and when taken as a whole result in vastly different compounds. Additionally, the vastness of the claimed subject matter and the complications in understanding the claimed subject matter impose a serious burden on any examination of the claimed subject matter.

Because the claims do not relate to a single general inventive concept under PCT Rule 13.1 and lack the same or corresponding special technical features, the claims lack unity of invention and should be limited to a product, a process for the manufacture of said product, or a method of use.

Furthermore, with respect to **Groups I-XXII**, even if unity of invention under 37 CFR 1.475(a) is not lacking, under 37 CFR 1.475(b) a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations:

- (1) A product and a process specially adapted for the manufacture of said product; or
- (2) A product and process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or
- (4) A process and an apparatus or means specially designed for carrying out the said process; or
- (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specially designed for carrying out the said process.

Moreover, according to 37 CFR 1.475(c),

If an application contains claims to more or less than one of the combinations of categories of invention set forth in paragraph (b), unity of invention might not be present.

In the instant case the claims are drawn to more than one product, process, and method of use. According to 37 CFR 1.475(e),

The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

As a result, the claims lack unity of invention and applicant is required to elect a single invention and a single compound, including an exact definition of all substituents and variables wherein a single member at each substituent group or moiety is selected. For example, if a base molecule has a substituent group R₁, wherein R₁ is recited to be any one of H, OH, COOH, aryl, alkoxy, halogen, amino, etc., then applicant must select a single substituent of R₁, for example OH or aryl and each subsequent variable position.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even if the restriction requirement is traversed (37 CFR 1.143).

Telephonic Inquiry

A telephone call was made to Paul Dupont, Esquire on or about July 17, 2006 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

IV. CONCLUSION

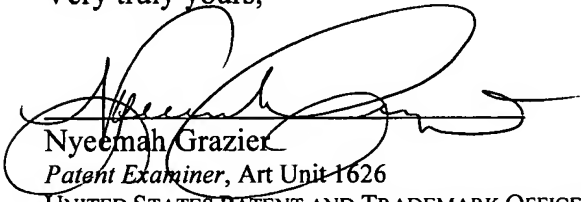
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nyeemah Grazier whose telephone number is (571) 272-8781. The examiner can normally be reached on Monday through Friday from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (571) 272 - 0699. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

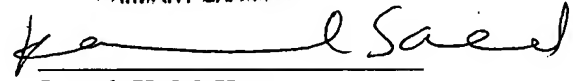
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Very truly yours,


Nyeemah Grazier
Patent Examiner, Art Unit 1626
UNITED STATES PATENT AND TRADEMARK OFFICE
400 Dulany Street
Alexandria, VA 22314-5774
Tel. No.: (571) 272-8781

KAMAL A. SAEED, PH.D.
PRIMARY EXAMINER


for Joseph K. McKane
Supervisory Primary Examiner, Art Unit 1626
UNITED STATES PATENT AND TRADEMARK OFFICE
400 Dulany Street
Alexandria, VA 22314-5774